IN THE CLAIMS:

Claims 15, 16, 20, 21, 22, and 34 through 42 were previously cancelled. Claims 1, 8 through 12 and 19 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Currently amended) A method of forming an ablative coating on at least a portion of a structure comprising:

forming a mold having a cavity configured to cooperatively receive the at least a portion of the structure;

placing the at least a portion of the structure in the cavity of the mold;

preforming at least one spacer from a first ablative mixture;

placing the at least one spacer between the surface of the structure and a surface of the mold within the mold cavity to establish a desired thickness of the ablative coating;

introducing a second ablative mixture that is substantially similar in composition to the first ablative mixture into the mold cavity such that it is in contact with the at least a portion of the structure; and

curing the second ablative mixture to bond the second ablative mixture to a surface of the at least a portion of the structure.

2. (Previously presented) The method of claim 1, further comprising heating the second ablative mixture to reduce a viscosity thereof prior to introducing the second ablative mixture into the mold cavity.

3. (Previously presented) The method of claim 1, wherein the curing the second ablative mixture includes curing the second ablative mixture at atmospheric pressure.

4. (Previously presented) The method of claim 1, wherein the curing the second ablative mixture includes a first curing stage of curing the second ablative mixture at a temperature in the range of approximately 70° to 95°F.

5. (Original) The method of claim 4, wherein the first curing stage is conducted for approximately 8 hours.

6. (Previously presented) The method of claim 5, wherein the curing the second ablative mixture further includes a second curing stage of curing the second ablative mixture at an elevated temperature subsequent to the first curing stage.

7. (Previously presented) The method of claim 6, wherein the second curing stage further includes curing the second ablative mixture at approximately 110° F for approximately 8 hours.

8. (Currently amended) The method of claim 1, further comprising providing a relief in the mold for receipt of the second ablative mixture in excess of that required by the mold cavity having the at least a portion of the structure therein.

9. (Currently amended) The method of claim 8, further comprising locating the relief above the cavity in the mold to allow air bubbles to flow into the excess second ablative mixture contained in the relief.

10. (Currently amended) The method of claim 8, further comprising removing the mold subsequent to the curing and trimming the cured excess second ablative mixture.

11. (Currently amended) The method of claim 1, further comprising removing the mold subsequent to the curing and buffing at least a portion of a surface of the cured second ablative mixture.

12. (Currently amended) The method of claim 1, further comprising removing the mold subsequent to the curing and patching at least one vug in a surface of the cured second ablative mixture by placing an additional amount of ablative mixture over the at least one vug and curing the additional amount of ablative mixture.

13. (Original) The method of claim 12, further comprising shaping the additional amount of ablative mixture prior to curing thereof.

14. (Previously presented) The method of claim 1, further comprising configuring the mold cavity such that the second ablative mixture introduced therein will form an ablative coating of varied thickness over the surface of the at least a portion of the structure.

15. (Cancelled)

16. (Cancelled)

17. (Previously presented) The method of claim 1, further comprising configuring the mold cavity to define at least one stay-out zone such that the second ablative mixture introduced into the mold cavity forms around the at least one stay-out zone but does not impinge into the at least one stay-out zone.

18. (Previously presented) The method of claim 17, wherein the defining at least one stay-out zone includes placing a boss about an area of the structure prior to introducing the second ablative mixture into the mold cavity and removing the boss subsequent to the curing of the second ablative mixture.

19. (Previously presented) A method of forming an ablative coating on at least a portion of a structure, the method comprising:

forming a mold with a cavity configured to cooperatively receive the at least a portion of the structure;

placing a first coat of a release agent on a surface of the mold cavity;

baking the mold at a temperature of approximately 200°F for approximately 6 hours;

placing a second coat of the release agent on the surface of the mold cavity subsequent the baking;

placing the at least a portion of the structure in the mold cavity after the baking the mold and after placing the second coat of release agent ~~on a~~ on the surface of the mold cavity;

mixing a salt-filled epoxy resin base, a fiber-filled polyamide hardener and a silicone resin modifier to form an ablative insulation mixture;

introducing the ablative insulation mixture into the mold cavity so that the ablative insulation mixture contacts a surface of the at least a portion of the structure; and

curing the ablative insulation mixture.

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Original) The method of claim 19, further comprising introducing the ablative insulation mixture into the mold cavity through at least two locations in the mold.

24. (Original) The method of claim 19, wherein the curing of the ablative insulation mixture includes curing at an atmospheric pressure.

25. (Previously presented) The method of claim 24, wherein the curing of the ablative insulation mixture includes a first curing stage of curing the ablative insulation mixture at approximately 70° to 95°F for approximately 6 to 8 hours from a time when the ablative insulation mixture is first introduced into the mold cavity.

26. (Previously presented) The method of claim 25, wherein the curing of the ablative insulation mixture includes a second curing stage of curing the ablative insulation mixture at an elevated temperature of approximately 110°F for approximately 8 hours subsequent to the first curing stage.

27. (Original) The method of claim 26, further comprising removing the mold from the structure and the cured ablative insulation mixture.

28. (Previously presented) The method of claim 19, wherein the mixing to form an ablative insulation mixture includes mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener and the silicone resin modifier with a mixing machine.

29. (Previously presented) The method of claim 28, wherein the mixing to form an ablative insulation mixture further includes mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener and the silicone resin modifier at a pressure above atmospheric pressure.

30. (Previously presented) The method of claim 19, wherein the mixing to form an ablative insulation mixture includes mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener and the silicone resin modifier by hand.

31. (Previously presented) The method of claim 30, wherein the mixing to form an ablative insulation mixture includes allowing the ablative insulation mixture to sit for a predetermined time period subsequent to the mixing by hand and prior to the introducing the ablative insulation mixture into the mold cavity.

32. (Original) The method of claim 31, further comprising configuring the mold with a relief adjacent the mold cavity and flowing an excess of the ablative insulation mixture into the relief.

33. (Previously presented) The method of claim 32, further comprising trimming the excess of the ablative insulation mixture subsequent to the curing of the ablative insulation mixture.

34.-42. (Cancelled)